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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,139	03/19/2001	Bartlett Scott Hudson Michel	D-427A	7587

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EXAMINER
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DIVECHA, KAMAL B

ART UNIT	PAPER NUMBER
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2151

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/812,139

Applicant(s)

HUDSON MICHEL, BARTLETT  
SCOTT

Examiner

KAMAL B. DIVECHA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Claims 1-18 are pending in this application.

Claim 5 was previously cancelled.

Claim 18 is newly added claim.

**Response to Arguments**

Applicant's arguments filed January 29, 2007 have been fully considered but they are not persuasive.

In response filed, applicant argues in substance that:

a. Jordan does not solve the problem of migrating forwarding tables from one cache to another, nor uses the solution of transmitting routing information associating a URL-id with a source IPA of the source storing the URL-id web content data so as to migrate the forward and routing table about the cooperative caches (remarks, page 14, page 16).

In response to argument [a], Examiner respectfully disagrees in light of the followings:

**Claim 1 recites:**

A method of broadcasting from a proximal cache at a proximal internet protocol address a routing information for indicating an originator storing web content data associated with a uniform resource locator of a web server at an originating IPA permanently storing the web content data, the method comprising the steps of: generating at the proximal IPA an originating URL identifier for indicating the URL, at the proximal IPA a sourcing IPA for indicating the originator, destination IPA generating at the proximal IPA a destination IPA for indicating a destination cache, associating at the proximal IPA, the sourcing IPA and the originating URL as the routing information, and transmitting the routing information from the proximal cache at the proximal IPA to the destination cache at a destination IPA.

First, the context of the claim fails to disclose, teach, suggest or event hint the process of migrating forwarding tables from one cache to another, nor it uses the solution of transmitting

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routing information associating a URL-id with a source IPA of the source storing the URL-id web content data so as to migrate the forward and routing table about the cooperative caches.

In other words, the features upon which applicant relies (as in argument a) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On the other hand, Jordan, in its clear context, explicitly teaches the process of transmitting the routing information (such as source address, destination address, forwarding address, next hop address: as disclosed in the request) to an arbitrary cache or destination upon a cache miss, wherein the a new entry is created for the object in a caching table, a routing or forwarding table (col. 6 L50-67 and fig. 2a).

For the at least these reasons, applicants arguments directed towards the distinction between the prior art and claimed invention, based on the features above, are considered not persuasive.

- b. Jordan does teach a means for broadcasting routing information, including an association between the URL-id and source of the URL-id web content data, but rather merely directs the request to an unloaded server (remarks, page 15).

In response to argument [b], Examiner respectfully disagrees.

Once again, the context of the claim fails to disclose, teach, suggest or event hint the process of broadcasting routing information, including an association between the URL-id and source of the URL-id web content data.

In other words, the features upon which applicant relies (as in argument b) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On the other hand, applicant did acknowledge: "In Jordan, a proximal cache at a proximal IPA, receives a request for URL web content data from an originator. When the proximal cache at the proximal IPA is overloaded, the proximal IPA directs the original request to the destination IPA. The request contains an association between the originating IPA of the originator requesting the web content data and the URL-id. The destination then becomes the owner...the destination can then retrieve the URL-id web content data and store it locally, and update its forwarding table indicating it has this URL-id and web content data" (remarks, page 15).

As such, applicant arguments directed towards the distinction between the prior art and claimed invention, based on the features above, are considered not persuasive.

- c. Jordan does not teach a method of broadcasting this association to an arbitrary destination, which can then reconstruct a forwarding table (remarks, page 15).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., broadcasting this association to an arbitrary destination, which can then reconstruct a forwarding table) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On the other hand, applicant did acknowledge: "In Jordan, a proximal cache at a proximal IPA, receives a request for URL web content data from an originator. When the proximal cache at the proximal IPA is overloaded, the proximal IPA directs the original request to the destination IPA. The request contains an association between the originating IPA of the originator requesting the web content data and the URL-id. The destination then becomes the owner...the destination can then retrieve the URL-id web content data and store it locally, and update its forwarding table indicating it has this URL-id and web content data" (remarks, page 15).

At column 6, lines 50-67, Jordan teaches the process of transmitting the routing information (such as source address, destination address, forwarding address, next hop address: as disclosed in the request) to an arbitrary cache or destination upon a cache miss, wherein the a new entry is created for the object in a caching table, a routing or forwarding table, i.e. the forwarding table is updated, and/or reconstructed based on the received information (col. 6 L50-67 and fig. 2a).

Therefore, applicants arguments directed towards the distinction between the prior art and the claimed invention, based on the various features above, are considered not persuasive.

For the at least these reasons, the REJECTION IS MAINTAINED.

**Terminal Disclaimer**

The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

The assignee has not established its ownership interest in the application, in order to support the terminal disclaimer. There is no submission in the record establishing the ownership interest by either (a) providing documentary evidence of a chain of title from the original inventor(s) to the assignee and a statement affirming that the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11, or (b) specifying (by reel and frame number) where such documentary evidence is recorded in the Office (37 CFR 3.73(b)).

As such, the double patenting rejection is maintained.

**Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-4, 6-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 09/810,303.

The subject matter claimed in the instant application is fully disclosed in the co-pending application and is covered by the co-pending application since the co-pending application and the instant application are claiming common subject matter.



Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-15 of the co-pending application discloses all the limitations of the claims of the instant application.

“A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). “ ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4, 6-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 1 recites:**

A method of broadcasting from a proximal cache at a proximal internet protocol address a routing information for indicating an originator storing web content data associated with a uniform resource locator of a web server at an originating IPA permanently storing the web content data, the method comprising the steps of: generating at the proximal IPA an originating URL identifier for indicating the URL, at the proximal IPA a sourcing IPA for indicating the originator, destination IPA generating at the proximal IPA a destination IPA for indicating a destination cache, associating at the proximal IPA, the sourcing IPA and the originating URL as the routing information, and transmitting the routing information from the proximal cache at the proximal IPA to the destination cache at a destination IPA.

The recited limitation “at the proximal IPA a sourcing IPA...” is indefinite because the limitation is unclear.

The recited limitation “at the proximal IPA a destination IPA...” renders the claim indefinite because the limitation is unclear.

For example: the limitation sourcing IPA generating at the proximal IPA a sourcing IPA when interpreted in its entire form reads as, sourcing internet protocol address, i.e. an IP address generating at the proximal internet protocol address a sourcing internet protocol address, does not make sense.

As is known in the art, an IP address is an address assigned to a device for communication purposes in a network comprising Internet or Intranet.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 8, 9, 11, 12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (hereinafter Jordan, US Patent No. 6,438,652 B1) in view of Husak (US 5,828,665).

As per claim 8, Jordan discloses a method of broadcasting from a proximal cache at a proximal IPA a routing information for indicating a distal cache storing web content data associated with a URL of a web server permanently storing the web content data, the proximal web cache is a first one of the plurality of cooperative web caches (fig. 1a, col. 2 L4-39, col. 3 L19-41), the method comprising:

- generating a the proximal IPA a URL identifier for indicating the web content data of the URL stored in the distal web cache (col. 5 L25-65, col. 9 L1-22: a request message includes a url);
- generating at the proximal IPA the proximal IPA for indicating the location of the proximal cache (col. 6 L50 to col. 7 L35: a request message includes a an originating address, i.e. source address),
- generating at the proximal IPA a destination IPA for indicating a destination cache (col. 6 L50 to col. 7 L35: a request message also includes a destination address),

- associating at the proximal IPA the proximal IPA and the URL identifier as the routing information (col. 6 L50 to col. 7 L35: every request message includes the source, destination and the URL of the object), and
- transmitting the routing information from the proximal cache at the proximal IPA to the destination cache at a destination IPA (col. 6 L50 to col. 67 L65 and fig. 3-4).

However, Jordan does not disclose the process of distance generating at the proximal IPA a distance metric for indicating a web hop distance of any number of the plurality of web hops through which the data would be communicated from the source to the destination.

Husak explicitly discloses the process distance generating at the proximal distance IPA a distance metric for indicating a web hop distance of any number of the plurality of web hops through which the data would be communicated from the source to the destination and broadcasting the update message to the destination (col. 2 L31-67).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Jordan in view of Husak in order to generate at the proximal IPA a distance metric for indicating a web hop distance through which the data, i.e. content would be communicated from the source to the destination.

One of ordinary skilled in the art would have been motivated because hop count metric I used to measure the integer distance in the network in order to achieve optimal path routing in the network (Husak, col. 2 L45 to col. 3 L19).

As per claim 6, Jordan discloses the process wherein the source is a web server distally and permanently storing the web content and the sourcing IPA is a web server IPA indicating the IPA location of the web server (fig. 1a, fig. 1B and col. 3 L18-50).

As per claim 9, Jordan in view of Husak discloses the process wherein the distance metric is greater than one indicating a number greater than one of the number of web hops between the destination caches through the proximal cache to the distal cache storing the web content data (Husak, col. 2 L31-67). Motivation to combine set forth in claim 1.

As per claim 11, Jordan in view of Husak discloses the process of repeating the URL identifier generating step, proximal IPA generating step, distance generating step, associating step, a plurality of times for generating a plurality of routing items each comprising a url and a distance metric, and incorporating the plurality of routing items within protocol data structure within a routing packet prior to the transmitting step, the routing protocol packet comprising url and distance metric and proximal and destination IPA (Jordan, col. 9 L4-45, col. 10 L15-58 and Husak, col. 2 L31-67). Motivation to combine set forth in claim 1.

As per claim 15, Jordan in view of Husak discloses the process wherein the storing steps created a routing table for cross referencing the plurality of URL identifiers to the plurality of distance metrics and to one or more cooperative web caches of the cooperative web caches, the one or more cooperative web caches for routing URL identifiers to distal web caches storing the web content of the respective plurality if URL identifiers (Jordan, col. 8 L40-67, col. 9 L10-21; Husak, col. 2 L32-67). Motivation to combine set forth in claim 1.

As per claim 16, Jordan discloses the process wherein the proximal cache and the one or more cooperative web caches being within a local group of cooperative web caches (fig. 1a, fig. 1b and col. 3 L19-41).

As per claim 17, Jordan discloses the process wherein the proximal cache is within one or more local groups of cooperative web caches (fig. 1a-fig.1b and col. 3 L19-41).

As per claims 1-4, 12, 14 and 18, they do not teach or further define over the limitations in claims 8, 6, 9, 11 and 15-17. Therefore claims 1-4, 12, 14 and 18 are rejected for the same reasons as set forth in claims 8, 6, 9, 11 and 15-17.

4. Claims 7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (hereinafter Jordan, US Patent No. 6,438,652 B1) in view of Husak (US 5,828,665), and further in view of Bertis et al. (hereinafter Bertis, Us 6,092,100).

As per claim 7, Jordan in view of Husak does not disclose the process wherein the originating url is selected from the group consisting of, an exact url identifier being an exact url comprising plurality of urls, a wildcard url identifier being a wildcard url comprising a plurality of url components a last url component of which being a wildcard component, and a coded url identifier being a coded url comprising a series of hashing codes of decomposed url being a decomposition of the url selected from the group consisting of either an exact url or a wildcard url each of which comprising a series of url components, the series of hashing codes being a sequence of hashing codes of respective urls segments of a respective series of increasingly concatenated url components of the series of url components of the url.

Bertis explicitly discloses the process wherein the originating url is selected from the group consisting of, an exact url identifier being an exact url comprising plurality of urls (fig. 4 item #65, 67, fig. 5 item #96, 98), a wildcard url identifier being a wildcard url comprising a plurality of url components a last url component of which being a wildcard component (fig. 6 item #110), and a coded url identifier being a coded url comprising a series of hashing codes of decomposed url being a decomposition of the url selected from the group consisting of either an

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exact url or a wildcard url each of which comprising a series of url components, the series of hashing codes being a sequence of hashing codes of respective urls segments of a respective series of increasingly concatenated url components of the series of url components of the url (fig. 6 item #114, 116, fig. 7A, col. 2 L59 to col. 3 L12).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Jordan in view of Husak, and further in view of Bertis in order to select the exact url from a group consisting of exact url, wildcard url, and hash codes of the respective exact urls.

One of ordinary skilled in the art would have been motivated because it would have provided a mechanism for efficiently searching the urls (Bertis, col. 2 L50-67).

As per claims 10 and 13, they do not teach or further define over the limitations in claim 7. Therefore claims 10 and 13 are rejected for the same reasons as set forth in claim 7.

#### *Additional References*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Inohara et al., US 6,256,747 B1: Managing distributed servers.
- b. Garcia-Luna-Aceves et al., US 2002/0004846 A1: Locating Closest server using URL.
- c. McCanne, US 6,785,704 B1: Content Distribution system.
- d. Lowery et al., Us 2002/0107934 A1: Dynamic Distributed data caching.
- e. Grove et al., US 6,820,133 B1: High performance delivery of web content.

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

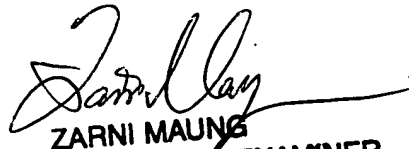


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Kamal Divecha  
Art Unit 2151  
April 3, 2007.



ZARNI MAUNG  
SUPERVISORY PATENT EXAMINER